TOWARDS A METHODOLOGY TO HELP PREDICT AND REDUCE THE IMPACT OF PROJECTS ON LONG-TERM COSTS, CORPORATE STRATEGY AND EXISTING IT INFRASTRUCTURE

By

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A dissertation submitted in fulfilment
of the requirements for the degree of
Doctor of Project Management

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Certificate of Authorship/Originality

I certify that the work in this thesis has not previously been submitted for a degree nor has it been submitted as part of requirements for a degree except as fully acknowledged within the text.

I also certify that the thesis has been written by me. Any help that I have received in my research work and the preparation of the thesis itself has been acknowledged. In addition, I certify that all information sources and literature used are indicated in the thesis.

Signature:

Amela Peric

Acknowledgments

First, I would like to thank my supervisor Dr John Twyford for his generous support, mentoring and encouragement during my research journey.

I would also like to extend my thanks to:

- Dr Deepak Bajaj for his assistance in the beginning of my research, during planning, literature review and research methodology preparations
- Associate Professor Shankar Sankaran for his guidance and review during the final stages of my thesis
- Dr Brenda Glover for her editing assistance

This research would not be possible without research participants, who found the time and willingness in their busy lives to provide data for this study.

Finally, I would like to thank my family and friends for their endless love and support.

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List of Abbreviations

ABS	Australian Bureau of Statistics
AIPM	Australian Institute of Project Management
BA	Business Analysis / Business Analyst
BCP	Business Continuity Planning
ERP	Enterprise resource planning
HR	Human Resources
ICT	Information and Communication Technology
Interview Code: BAM	BA Manager (interviewee)
Interview Code: BM	Business Manager (interviewee)
Interview Code: BU	Business users (interviewee)
Interview Code: CL	Corporate Lawyer (interviewee)
Interview Code: DM	Development Manager (interviewee)
Interview Code: DPM	Deputy Project Manager (interviewee)
Interview Code: ITM	IT managers (interviewee)
Interview Code: PM	Project Manager (interviewee)
Interview Code: SBA	Senior Business Analyst (interviewee)
Interview Code: SBM	Senior Business Managers (interviewee)
Interview Code: SITM	Senior IT managers (interviewee)
Interview Code: TA	Test Analysts (interviewee)
Interview Code: TM	Developer/team members (interviewee)
Interview Code: TMG	Test Manager (interviewee)
IP	Intellectual Property
IS	Information Systems
ISO	International Standards Organisation
IT	Information Technology

P2M	Project and Program Management for Enterprise Innovation
PIR	Post Implementation Review
PM	Project Management
PMA	Project Management Architect (P2M)
PMBOK	Project Management Body of Knowledge
PMCC	Project Management Core Competency
PMI	Project Management Institute
PMR	Project Manager Registered (P2M)
PMS	Project Management Specialist (P2M)
PRINCE	Projects in Controlled Environments
RS	Research Statement
SDLC	Software Development Life Cycle
TQM	Total Quality Management

Abstract

This thesis contributes to the body of project management and systems development knowledge, by investigating the success of a project beyond the standard criteria of project budget, objectives and timelines used to judge project performance.

This research has been conducted as part of the UTS "Doctor of Project Management" course, which encourages extension of the theoretical study of project management to a commercial environment - by investigating problems related to practical applications of project management.

This research attempts to highlight the unforeseen and unplanned impacts created by projects which are often neglected and excluded from project evaluation and strategic alignment. The goal of this study is to find ways to increase the overall benefits to organisations achieved through projects, while minimising unplanned and unforeseen negative impacts caused by projects.

To identify long-term impacts caused by projects, a case study is conducted with a real example, focusing on a large, deemed to be successfully completed project within an Australian financial organisation. The case study explores the environment, processes and events throughout project cycle and identifies various factors that influence project flow and create unforeseen impacts outside the planned project actions and outcomes. The case study analysis showed that some crucial decisions made about the project would have been different if some of those unplanned impacts were discovered earlier, for example during the discovery stage of the project. The unplanned impacts resulting from this project were manifested through extended timeline, additional costs and numerous post-project systems interdependencies. Since the original decisions about the way in which the project was implemented were largely based on financial factors, these impacts would have been highly relevant to project planning and could have changed some important decisions crucial to the conduct of the project by the organisation. The case study is representative of how projects are managed in the case study organisation.

The findings from the case study are further extended trough a mini-survey of 123 professionals, who confirmed that unplanned impacts created by projects are worth considering and managing. The survey respondents indicated that projects in their organisations were mainly concentrated on short-term, often isolated business needs and had little alignment with the overall strategy and coordination with other projects and initiatives. While organisations are aware of the problem and keen to improve management of unforeseen impacts and associated post-project costs, their efforts so far are largely informal. Both the case study and survey indicated the need for a formal way of managing the post-project impacts and alignment between projects and strategy within organisations.

Based on the literature review, case study and survey results, the research arrived at a set of findings and suggestions.

The suggestions are articulated through an organisational strategy alignment framework, covering four management areas: strategy and senior management, business management, systems development and project management. The main focus of the recommended actions is around effective management of vendor relationship, strategic alignment and unforeseen project impacts.

The recommended actions are grouped around the management areas as follows:

- Strategy and Senior Management Suggestions
    - Vendor management strategy directions
    - Strategy alignment directions
    - Roles and responsibilities
- Business Management Suggestions
    - Business impact analysis approach
    - Project success evaluation
    - Effective communication
- Systems Development Suggestions

        - Technical impact analysis approach
        - Solutions evaluation
        - Business and vendor communication
- Project Management Suggestions
        - Project planning and impact analysis
        - Solution evaluation
        - Strategy alignment
        - Project success evaluation
        - Utilisation of past experiences
        - Effective communication

The findings and resulting suggestions of this research contribute to:

- Project management theory
- Project management and systems development practice
- Project management, strategic and IT management practice

The main focus of this research is the identification of factors that cause unforeseen impact caused by projects on the IT environment and organisations. While the study provides a number of suggestions to improve the effective management of these factors, the detailed analysis of the recommended actions is not within the scope of this study and is suggested as an area for further research.

The Document Structure

The document is organised under the following structure:

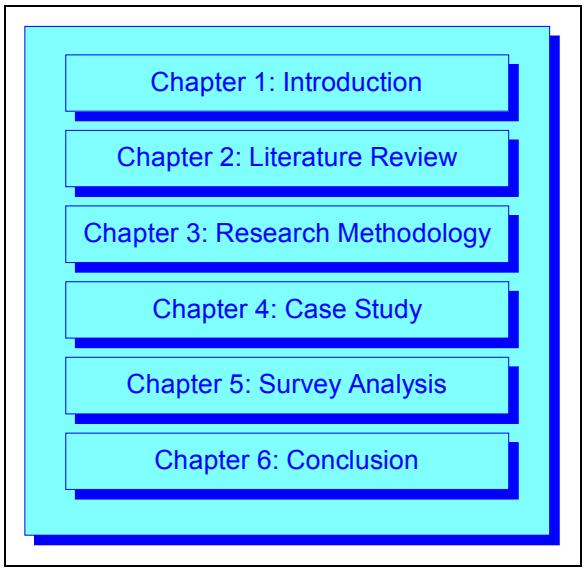

Figure 1 - Document Structure

Chapter 1: Introduction. The first chapter starts with the introduction into the research topic, project management background, project success and impacts on the existing environment within organisations. It then concentrates on the problem: unforeseen and unplanned impacts created by projects, impacting people, infrastructure, business, technology and finally costs. The research question and related statements are presented. The importance of the study (which is conducted primarily around information technology projects within the Australian financial industry) is stressed.

Chapter 2: Literature Review. The second chapter presents the review of the relevant literature, concentrating on topics around project management and the application of project management in the areas of information technology projects, strategy and financial industry. The literature review establishes the basis upon which the research topic is further analysed through the case study and survey.

Chapter 3: Research Methodology. The third chapter describes the research methodology that is applied to this study, namely the methods utilised for the case study and survey data collection and analysis. Data sources, data types and general approach to

collection and analysis of data are also described.

Chapter 4: The Case Study. This chapter contains the main body of the research and analysis, covering the project case study and related observations. The case study is aimed at analysing in detail one typical information technology project within an Australian financial organisation, with the goal at identifying the unforeseen and unplanned project impacts and the factors behind those impacts. Some of the case study findings are then further evaluated through survey.

Chapter 5: Survey Analysis. This chapter covers the analysis of data collected throughout the survey, which concentrated around the case study findings and the elements related to research statements. The goal of the survey analysis is to add additional perspective to the case study findings and help establish the case for possible patterns of behaviour and impacts across other projects, organisations and industries, while addressing the research statements.

Chapter 6: Conclusion. The final chapter presents the summary of the main findings, reflection on the overall research and the validity of the research statements, as well as the suggestion for further studies on the same topic.

References and Appendices. All referred sources are acknowledged. The appendices contain research data, interview and survey questions, as well as relevant forms required for research consent and data privacy assurance.